



Department of  
Environmental Protection

Bureau of Land & Water Quality July. 1999

## SUMMER FUN

This is a memo from Tina Darrell at the Kittery Sewer Dept. that I thought some of you might be interested in.

From: Pump Fiction Operator Challenge Team  
To: All interested Operators, Vendors, Inspectors, and Families  
What: A Pump Fiction Function!! Gator Stock 99!!  
When: Saturday, August 14, 1999  
Where: Carter's Farm in Scarborough, ME  
How Much: Donations of \$5.00 each or \$10.00 for a family  
Why: To raise funds to compete in New Orleans in October

The Pump Fiction Team placed second in the New England Regional Competition and we are now headed for New Orleans in October for the WEF Competition. We are hoping that you will decide to join us for a day of family fun. There will be grills going for whatever you bring to eat. There will be sausage sandwiches for sale as well as some soda and other foods. This is a BYOB gathering. Plans include a "Dunking Tank" and we have already had one DEP Inspector volunteer to sit on the "WET" seat. Other volunteers are invited to call, and if you have any suggestions for who should get "dunked" let us know. There will be horseshoes and pick up softball. Greg Kidd's band "Beyond Reason" will be providing live music. Bring

your own instruments and we will have and singing around an open fire later in the evening.

This year's theme is GATORS. Someone I trying to find Gator tails for grilling. But if all else fails there will be a large Gator Cake.

Call and get directions. This is going to be good summer fun, let you hair down, purely social event for all of us hard working people. There will be some camping spots available, so call early to reserve your spot. Hope to see you there.

Call Howard Carter at 282-3564 or Tina Darrell at 439-4646 for directions and information.

## Classified Ad

Larry Frost, of Soil Prep, Inc., in Plymouth, ME is looking for an Aero II aerator for his wastewater pond. He'll consider one in any condition. Call him at (207) 257-2525.

## Latest Information on the EPA DMR Study #19 Delay.

Those facilities required to participate in EPA DMR QA Study #19 received a letter from the EPA dated May 17, 1999 informing them to order their chemistry QA samples from a list of EPA/NIST approved laboratories as identified on Nist's web site address. However, when study participants went to this address, no NIST

approved labs were listed, hence participants could not order their chemistry QA samples.

I have received recent information from the EPA that indicates the list of approved labs will not be available until some time in September. The EPA is going to mail participants a letter with updated information in the near future. I have a copy of this letter in draft form. Although it is not official yet, it is apparent that participants do not have to order chemistry QA samples until this list is finalized. The EPA will send you a list of the approved labs when it is available and will provide modified instructions as is needed. In the meantime, please keep the May 17 instructions. The forms provided in this package will eventually be used to complete Study #19.

The wet test portion of this study remains unchanged and participants still need to follow the directions for doing these as outlined in the May 17 package:

- Your contract toxicity laboratory should have ordered toxicity Wet PE samples from the EPA on your behalf by June 14, 1999.
- Your toxicity lab needs to send you the results by September 10, 1999.
- You need to report these results on the forms provided in the May 17 package to the EPA by October 18, 1999. In this case, only wet tests required by your NPDES permit need to be run and only these results need to be reported.

If you need more information, please call me at 287-7659

[David Dodge]

### Spring Exam Statistics

The following are the pass/fail rates for the Spring 1999 exam

Grade	Pass/Fail	Percent passed
1PC	4/2	66.7%

1B	7/11	38.9%
2B	10/4	71.4%
3B	9/10	47.4%
4B	2/15	11.8%
5B	6/16	27.3%

### *For Practice*

1. The unit of electrical power is
  - a. The coulomb
  - b. The volt
  - c. The amp
  - d. The watt
2. The most important test to run to determine if an anaerobic digester is working properly are:
  - a. BOD, suspended solids and settleable solids
  - b. PH, alkalinity, and settleable solids
  - c. Volatile acid/alkalinity relationships
  - d. DO, volatile solids, and BOD
3. How long must laboratory records and reporting forms that show the quality of the influent and effluent be kept?
  - a. 3 years
  - b. 5 years
  - c. 7 years
  - d. forever
4. A rectangular flume is 12 inches wide and 18 inches deep. If the flume is full of water flowing at 2 feet per second, how much water is flowing through the flume?
  - a. 0.78 MGD
  - b. 1.94 MGD
  - c. 3.27 MGD
  - d. 5.93 MGD

### Fall 1999 Exam

The fall 1999 Wastewater Operator Certification Exam will be given Wednesday -- November 17, 1999 in the usual locations, South Portland, Bangor and Presque Isle. Application **must** be submitted to us by October 1, 1999.

Applications can be obtained by contacting Leslie Rucker at 287-9031 or by writing to Wastewater Operator Certification Program, Maine Department of Environmental Protection, 17 State House Station, Augusta, ME 04333-0017.

## UPCOMING TRAINING COURSES

July 20, 1999 in Bangor, ME, Maine Power Options – approved for 3.0 hours – sponsored by Maine Rural Water Association (207) 729-6569

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July 21, 1999 in Presque Isle, ME, Maine Power Options – approved for 3.0 hours – sponsored by Maine Rural Water Association (207) 729-6569

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July 27, 1999 in Poland Spring, ME, Maine Power Options – approved for 3.0 hours – sponsored by Maine Rural Water Association (207) 729-6569

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July 28, 1999 in Old Orchard Beach, ME, Maine Power Options – approved for 3.0 hours – sponsored by Maine Rural Water Association (207) 729-6569

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August 10, 1999 in Ellsworth, ME, Toxicity Reduction Workshop – approved for 6.0 hours – sponsored by sponsored by JETCC (207) 767-2539.

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August 11, 1999 in Lewiston, ME, Toxicity Reduction Workshop – approved for 6.0 hours – sponsored by sponsored by JETCC (207) 767-2539.

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August 18, 1999 in Presque Isle, ME, Mercury Detection, Reduction and Clean Sampling Techniques – approved for 6.0 hours – sponsored by sponsored by JETCC (207) 767-2539.

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August 25, 1999 in Portland, ME, Mercury Detection, Reduction and Clean Sampling

Techniques – approved for 6.0 hours – sponsored by sponsored by JETCC (207) 767-2539.

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August 31, 1999 in Brewer, ME, Mercury Detection, Reduction and Clean Sampling Techniques – approved for 6.0 hours – sponsored by sponsored by JETCC (207) 767-2539.

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September 14, 1999 in Presque Isle, ME, Electric Utility Deregulation, What does it mean to you? – approved for 6.0 hours, sponsored by JETCC (207) 767-2539.

## Answers to *For Practice*:

1. d. The unit used to designate electrical power is the watt.
2. c. In order for an anaerobic digester to work properly, there must be a balance between the organic acids produced by the anaerobic bacteria and the alkalinity of the sludge. The methane forming bacteria use the organic acids for food, but if there is not enough alkalinity to buffer the digester, it becomes too acidic and the methane producing bacteria are inhibited.
3. a. Records of the characteristics of the plants influent and effluent must be kept for 3 years.
4. b. The area of the flume is 1 foot X 1.5 foot = 1.5 square feet. If the water flows in the flume at 2 feet per second, the flume delivers 1.5 square feet X 2 feet/Second = 3 cubic feet/second (cfs) of flow. 1.55 cfs = 1 MGD. Therefore the flume delivers 3.0 cfs/1.55 cfs/MGD = 1.94 MGD.

# **MERCURY IN MAINE** **WATERS**

In response to some legislation passed this session, all treatment facilities are required to test their effluent for the presence of mercury. Some facilities have previously conducted this testing, however, a significant number of you have never done this before. Many activities will be taking place this summer and fall in support of this legislation. Two different mercury sampling training sessions, DEP field sampling at selected sites, Toxicity Reduction Evaluation training, and two stakeholder groups working on developing model Pollution Prevention plans and regulations to define how individual mercury effluent discharge limits will be established.

## **History of Mercury Contamination**

Mercury contamination in Maine was recognized as a significant health issue when fish advisories were first posted in 1987. These fish advisories are still posted to date and affect both warm and cold species of fish in all state waters. These advisories warn pregnant women, women planning pregnancy within one year, nursing women, and children less than 8 years of age not eat warm water fish species (e.g. bass, perch, pickerel, eel) and limit consumption of cold water species (e.g. trout, salmon) to 1 meal per month. These advisories have been the motivation to for the legislature and the Maine DEP to work on reducing the amount of mercury discharged to the waters of the state.

## **Past Communication with the Legislature**

Since January of 1998, the DEP has submitted 3 reports to the legislature dealing with mercury emissions to the environment and mercury in products. These reports assisted the legislature

in understanding and quantifying what the current situation is concerning mercury in the Maine environment.

## **1998 DEP Activities**

Last year, in response to legislation, the Maine DEP arranged for a training session concerning how to properly sample using EPA methods and a training session on performing a toxicity reduction evaluation. Additionally, Maine DEP staff collected and analyzed effluent samples from 85 municipal and industrial wastewater treatment facilities. With this information, Maine DEP drafted a report for the legislature which discussed the monitoring results, and the opportunities for treatment facilities to evaluate mercury discharges to their systems.

## **1999 DEP Field Sampling**

This year, DEP staff will be sampling wastewater treatment facilities that were not part of last year's sampling program. These facilities will receive on-site hands-on sample collection training while having their effluent sampled and analyzed. This sampling event is intended to obtain data concerning the facility's discharge while reinforcing the proper sampling technique.

## **Pollution Prevention Stakeholder Group**

As part of the legislation passed this year, the DEP was directed to develop model pollution prevention plans that any facility could customize for their own use. Don Albert, Maine DEP, is heading up a group of individuals that are charged with assisting in developing these plans. This group is made up of operators, consultants, and environmental groups that represent the parties affected by the most recent legislation.

## **Regulation Stakeholder Group**

As part of the legislation passed this year, the DEP was directed to develop regulations for the implementation of individual effluent limitations for mercury. Dennis Merrill, Maine DEP, is heading up a group of individuals that are charged with assisting in developing these regulations. This group is made up of operators, consultants, and environmental groups that represent the parties affected by the most recent legislation.

## **DEP Field Sampling Training**

The Maine Department of Environmental Protection scheduled training sessions on July 20<sup>th</sup>, 21<sup>st</sup>, 22<sup>nd</sup>, and 29<sup>th</sup> to provide you with training on how to collect a mercury sample using EPA method 1669. In addition, other training sessions have been scheduled for late this summer and fall to help you learn more about mercury sources and how to identify and search out potential sources that discharge to your sewer system.

## **JETCC Mercury Training Opportunities**

JETCC has made arrangements with 4 consultants and the Maine DEP to conduct two different training sessions to assist operators with identifying and reducing sources of mercury discharge. *“Mercury Detection & Mercury Reduction for Wastewater Treatment Plant Operation”* will be offered August 18<sup>th</sup> in Presque Isle, August 25<sup>th</sup> in Portland, and August 31<sup>st</sup> in Brewer. *“Toxicity Reduction Workshops”* will be offered August 10<sup>th</sup> in Ellsworth and August 11<sup>th</sup> in Lewiston.

## **Future Communication with the Legislature**

The DEP is required to report back to the Natural Resources Committee of the Legislature in both January of 2000 and 2001. In January of 2000 the DEP will be reporting on the following:

1. the outcome of the pollution prevention stakeholder group,
2. the outcome of the regulation stakeholder group,
3. results of additional testing performed by individual facilities,
4. results of additional testing performed by the DEP,
5. and, the progress that facilities have made implementing the model pollution prevention plans developed by the stakeholder group.